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CIA HISTORICAL REVIEW PROGRAM
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MEMORANDUM FOR: Deputy Director (Intelligence)

ATTENTION: Assistant to DD/I (NSC)

SUBJECT: Information on Surface Transportation in the USSR
for the United States Arms Control and Disarmament Agency

Attached is information requested by Mr. Larry Holmes of the Arms Control and Disarmament Agency on surface transportation in the USSR for use in the preparation of a plan for surveillance associated with disarmament in the USSR. We understand that Mr. Holmes hopes to receive this information by e.o.b. 21 February 1962.

Acting Assistant Director
Research and Reports

Enclosures:

1. Subject Report
2. Copy of CIA/NS

21 FEB 1962

I. Introduction

The purpose of this paper is to supply information on surface transportation in the USSR for use in estimating the magnitude of a surface transportation surveillance system associated with disarmament. Some notion of the magnitude of this task of surveillance can be obtained from the following sections which contain information on railroads, highways, maritime and inland water transport. See also CIA/HR RI 61-3, February 1961, Transportation Growth and Trends in the USSR, 1930-65, which is included as Attachment A to this paper.

Surveillance of the transportation system of the USSR as a whole is a vast undertaking. If traffic movements requiring surveillance were restricted only to those moving between rather large designated zones, the number of facilities that would have to be kept under surveillance would be reduced substantially.

II. Railroad Yards

Major freight classification and terminal yards would be locations at which traffic could be subjected to some surveillance without halting all traffic on major railroad routes. Through trains whose cars do not require classification at intermediate yards, nevertheless, would present special problems in surveillance.

A Soviet article published in 1957 states that the railroad system has approximately 200 major freight yards which handle a total of 600,000 cars daily and make up more than 7,000 trains daily.* In the following tabulation are listed 205 of the more important freight classification and terminal yards. These yards are listed alphabetically by name of the yard and not necessarily by the name of the location of the yard.

The railroad system on which each yard is located is also listed. Place names on the railroads and the location and extent of each railroad system are indicated on the map, Attachment A, Figure 5.

* L. Chertkov, "Progressive Working Methods in Transport and their Economic Efficiency", in Sotsialisticheskiy Trud, no 4, April 1957. U.

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<u>Yard</u>	<u>Railroad System</u>	<u>Remarks</u>
Alchevskoye (Voroshilovsk)	Donets	
Alma Ata I	Kazakh	
Altayskaya	Tomsk	Said in 1959 to process 2,500-3,000 cars daily.
Antratsit	Donets	
Angarskaya	Tomsk	
Arys'	Tashkent	
Bakal	South Ural	
Baku Freight	Transcaucasian	
Balashov	Azerbaydzhan	
Balashov	Southeastern	
Bannaya	Volga	
Berezhinsk	Gork	
Bereznichi	Northern	
Barnaul	Tomsk	
Bataysk	North Caucasus	
Batuzki	Krylyshev	
Bentla	Ufa	
Bergovaya	Krylyshev	
Biryulevo	Moscow-Kursk-Donbass	
Bogdanovsk	Sverdlovsk	
Bogaya	Moscow	
Brat Tsentral'nyy	Belorussian	
Brat Vostochnyi	Belorussian	
Bryansk I'Govskiy	Moscow-Kiev	
Bry	Northern	
Chelyabinsk Glavnyy	South Ural	
Cherashovo	East Siberian	
Chernogorskiye Kapi	Krasnoyarsk	
Chirehik	Tashkent	
Chita	Transbaykal	
Chop	L'vov	
Chulyskaya	Tomsk	
Chushevo	Donets	
Chusovskaya	Sverdlovsk	
Darnitsa	Southwestern	Probably processes over 3,000 cars daily.
Debal'tsevo	Donets	
Demi	Krylyshev	
Diyvka	Stalin	
Dubrovka Chelyabinskaya	South Ural	
Elektrostantsiya	South Ural	
Faktor	Southwestern	
Gomel'	Belorussian	
Gor'kiy	Gor'kiy	
Gor'kiy Freight	Gor'kiy	
Gorlovka	Donets	
Goryainovo	Stalin	
Grosnyy	Ordzhonikidze	
Gubakha	Sverdlovsk	

<u>Yard</u>	<u>Railroad System</u>	<u>Remarks</u>
Gadron	Orenburg	
Ilovayskoye	Donets	
Imeni Mikhaila Gor'kogo	Volga	
Imeni Tarasa Shevchenko	Odesa	
Inskaya	Tomsk	Soviets claim capability of 4,000 cars daily.
Irkutsk	East Siberia	
Ishimbayev	Ufa	
Ishovsk - II	Kazan'	
Kagan	Ashkhabad	
Kal'mius	Donets	
Kalsagay	Tomsk	
Kandalap	Tomsk	
Karaganda	Kazakh	Said in 1959 to process 2,500-3,000 cars daily.
Karaganda Ugol'naya	Karaganda	
Kartaly	South Ural	
Kavkazskaya	North Caucasus	
Kazan'	Kazan'	
Kasatin	Southwestern	
Kaseroys	Tomsk	
Khabarovsk Vtory	Far Eastern	
Khar'kov Bolshhevskiy	Southern	
Khar'kov Freight	Southern	
Khar'kov North	Southern	
Khovrino	October	
Kinel'	Kuybyshev	
Kirov	Ger'kiy	
Kiyer Freight	Southwestern	
Kizal	Sverdlovsk	
Koyasveta	Volga	
Kochetovka Parvaya	Moscow - Ryazan'	
Kol'mugino	Tomsk	
Konstantinovka	Donets	
Kovel	L'vov	
Krasnovorskaya	Donets	
Krasnodar Sovrosiyskiy	North Caucasian	
Krasnodsk II	Ashkhabad	
Krasnoyarsk	Krasnoyarsk	
Krasnyy Liman	Donets	Soviets claim capability of 4,000 cars daily.
Kropachevo	South Ural	
Kryash	Kuybyshev	
Kupysansk-Uzlovoy	Donets	
Kursk	Moscow-Kursk-	
	Donetsk	
Kushovo	Ger'kiy	
Kuybyshev	Kuybyshev	
Kuybyshevka-Vostochnaya	Amur	

<u>Yard</u>	<u>Railroad System</u>	<u>Remarks</u>
Leningrad Freight Baltic	October	
Leningrad Freight Moscow	October	
Leningrad Freight Varslavskiy	October	
Leningrad Navalnoy	October	
Leningrad Vitebskiy	October	
Likhaya	Southeastern	
Liski	Southeastern	Said in 1959 to process 2,500-3,000 cars daily.
Losovaya	Southern	
L'vov	L'vov	
Lysogorovo	Gor'kiy	
Magnitogorsk	South Ural	
Makhsch-Sala Vtoraya-Portovaya	Ordzhonikidze	
Makushino	Donk	
Mandrykino	Donets	
Metallurgicheskaya	South Ural	
Mitkayla-Isent'yevskaya	North Caucasian	
Mikhailovskaya Voly	Ordzhonikidze	
Minsk	Belorussian	
Moshalinskoy	Donets	
<u>Moscow</u>		
Khovrino	October	
Losinostrovskaya	Northern	Said in 1959 to process 2,500-3,000 cars daily. Soviets claim capability of 4,000 cars daily.
Lyskino	Moscow-Kursk-	
	Donbas	
Parovo	Moscow-Ryazan'	
Pedukovskaya	Belina	
Sortirovchnaya	Moscow-Ryazan'	
Freight, Kursk	Moscow-Kursk-	
	Donbas	
I, Freight	Moscow-Ryazan'	
Freight, Pavletskaya	Moscow-Kursk-	
	Donbas	
Moskavka	Donk	Said in 1959 to process 2,500-3,000 cars daily.
Mudrenaya	Stalin	
Murmanak	Kirov	
Muram	Sagan'	
Nys Charkin	Far Eastern	
Nadashinsk (Serov)	Sverdlovsk	
Nakhichevan' Donakaya Freight	North Caucasian	
Nashin	Southwestern	Probably processes over 2,500 cars daily.
Nikel'	Orenburg	
Nikitovka	Donets	
Nizhnedneprovsk Uzel	Stalin	
Novokuznetsk Classification	Tomsk	
Novorossiysk	North Caucasian	
Novosibirsk	Tomsk	

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<u>Yard</u>	<u>Railroad System</u>	<u>Remarks</u>
Koryv Port	October	
Odessa Freight	Odessa	
Odessa Pereypp'	Odessa	
Odessa Port	Odessa	
Orsk	Orsk	
Orel Freight	Moscow-Kursk-	
	Donbass	
Orenburg	Orenburg	
Orsk	Orenburg	
Osnova	Southern	
Penza	Kuybyshev	
Pera	Sverdlovsk	
Perovo	Moscow-Ryazan'	
Petrovavlovsk	Orsk	
Prisady	Moscow-Kursk-	
	Donbass	
Rybinsk	Amur	
Rosl	Kishinev	
Rtishchevo	Southeastern	
Rutobanskovo	Donets	
Ruzayevka	Kuybyshev	
Rybinsk (Kucherbakov) Freight	Northern	
Rybnogo	Moscow-Ryazan'	
Saratov	Volga	
Sartana	Stalin	
Saripalatinsk	Kazakh	
Serge Ufaleyskaya	South Ural	
Shchekino	Moscow-Kursk-	
	Donbass	
Shapstovka	Southeastern	
Shkiretka	Latvian	Said in 1959 to process 2,500-3,000 cars daily.
Shubary	October	
Shuvakish	Sverdlovsk	
Smolensk	Kalinin	Estimated in 1958 to be capable of processing 2,500-3,000 cars daily.
Sychanka	Sverdlovsk	
Stalingrad	Volga	
Stalino	Donets	
Sverdlovsk	Sverdlovsk	
Sverdlovsk Freight	Sverdlovsk	
Tashkent-Freight	Tashkent	
Tatarskaya	Orsk	
Tayga	Tomsk	
Tikhoretskaya	North Caucasus	
Trituznaya (Dneprodzerzhinsk)	Stalin	
Trudovaya	Donets	
Turnout Station 27th Kilometer	North Caucasian	
Uaz	South Ural	

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<u>Yard</u>	<u>Railroad System</u>	<u>Remarks</u>
Urent'yevskaya	Tashkent	
Urussu	Ufa	
Usaty, (Prokop'yevsk)	Tomsk	
Uvek	Volga	
Uzlovaya Pervaya	Moscow-Kursk-	
	Dnabass	
Vagonosavod	Sverdlovsk	
Valuyki	Southern	
Velikie Luki	Kalinin	
Verkhovskaya	Stalin	
Vilnyus	Lithuanian	
Volkhovstroy	October and Kirov	Said in 1959 to process 2,500-3,000 cars daily.
Vologda	Northern	
Vostresensk	Moscow-Kyazan'	
Vopel'ye	Northern	
Vykhle	Atkhabad	
Vysokino	Moscow-Kyazan'	
Vozdarski' Pristan' (Pier)	Northern	
Vozdarskaya	Donets	
Voznaya Polyan	Moscow-Kursk-	
	Dnabass	
Yalatsi Olavayi	Moscow-Kursk-	
	Dnabass	
Yemskiyev	Donets	
Yerevan	Transcaucasian	
Yudino	Kazan'	
Yuzovsk'ye Levoye	Stalin	
Yuzovsk	South Ural	
Znamens	Glasst	

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III. Rail Transloading Areas at the USSR-European Satellite Borders

Because USSR railroads are broad gauge (5' feet) while the European Satellite railroads are standard gauge, (4' 8 1/2") transfer of through rail traffic from cars of one gauge to the other is necessary at border crossing points. The performance of this transfer is the function of the transloading areas.

The transloading areas or complexes along the borders extend from ten to twenty five kilometers on either side of the border, and consist of a number of yards or stations all of which have dual gauge parallel tracks. Some of the stations have cranes, overhead ramps for gravity transfer of coal and ore, and pumping facilities for the transfer of petroleum while others contain platforms between dual gauge tracks over which cargo is transferred by manual labor. Some freight transloading stations have hoists where freight cars are lifted and wheel sets are exchanged, thus permitting the railroad car to operate on either gauge, and eliminating the physical transfer of the loading.

There are ten main transloading complexes along the USSR-European Satellite borders. From north to south they are:

Locations of the Transloading Complexes

In the USSR

1. Kaliningrad
2. Charyvskiy
3. Grodno
4. Barstovista
5. Brest
6. Movel
7. Mostiska

8. Chop

Chop

9. Dornesti
10. Ungeny

In Poland

Braniewo
Siedlona
Scholka
Karcza
Torrespol
Chala
Przemysl

In Czechoslovakia

Cierna Nad Tisou

In Hungary

Fahony

In Rumania

Radauti
Iasi

These complexes vary in importance. The more important ones from the stand point of traffic, however, are numbers 1, 5, 7, 8 and 10. The most modern transloading equipment is located at 5, 7 and 8. The principal complexes used by the

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USSR for military traffic to East Germany are numbers 5 and 7. Smaller quantities of military cargoes could be moved surreptitiously, however, at any point along the border where the rail lines of the respective countries meet, and which are not listed among the principal transloading areas mentioned above. For example, a standard gauge railroad crosses the Polish border at Kroscienko, Poland and extends to Sambor in the USSR, a short distance southwest of Ivry. Also, a wide gauge line crosses the USSR border at Uhgerod, and extends to Velke Kapusany in Czechoslovakia where it connects with the Czechoslovakian system.

IV. Highways

Since origination and termination of shipments could occur at virtually any industrial or military installation or storage facility on or near a highway without rehandling enroute, it is not possible to maintain effective surveillance of highway traffic at any established highway transportation centers. Check points would, therefore, probably have to be established along key intercity routes and at least some traffic would have to be stopped.

The network of improved roads in the USSR is very limited. At the end of 1960 there were only 77,100 kilometers of paved roads.* This is about 4 percent of the length of the US system of similar roads.

Soviet paved roads are almost exclusively 2 and 3 lane asphalt roads. A very limited number of unpaved but otherwise improved roads are considered to be all weather. Most unpaved roads are in very poor condition most of the year. The highway network in the USSR is most dense in the more populated areas. Perhaps 80 percent of the roads are located west of the Volga River.

Nearly all major population and industrial centers in European USSR are connected by paved highways.† The network is not well developed, these routes are often circuitous. The number of intercity highways in Asian USSR are extremely limited.

Listed below are the principal intercity highway links as they radiate from major populated and industrial centers. Figure 15 of attachment A is a map of selected highways in the USSR; the following list, however, serves to update and revise some information on the map.

Principal Paved Roads in the USSR**

Moscow - Minsk - Brest
Moscow - Khabarovsk - Brest
Moscow - Leningrad - Vyborg (Finnish Border)
Moscow - Yaroslavl - Kostroma and Valogda
Moscow - Gorkiy - Kazan - Ufa
Moscow - Ryazan - Penza - Kuybyshev
Moscow - Kharkov - Simferopol

* A paved road is one that has been graded and surfaced with either a water-resistant material or a material which facilitates drainage--that is, concrete or asphalt.

** Excludes local or short distance roads regardless of quality.

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Leningrad - Tallin or Tartar or Pskov - Riga - Kaliningrad
Leningrad - Pskov - Vitebsk - Kiev - Odessa
Leningrad - Pskov - Vilnius
Leningrad - Petrosavodsk
Kiev - Zhitomir - Lutsk - (Polish Border)
L'vov - (Czechoslovakia Border)
Kiev - Kharkov - Rostov - Grozny - Baku
Kiev - Kursk - Voronezh - Saratov
L'vov - Lutsk - Ernst (Polish Border)
L'vov - Ungorod - Chop (Hungarian Border)
L'vov - Vinnitsa - Dnepropetrovsk - Stalino
Odessa - Kishinev - (Rumanian Border)
Odessa - Nikolayev - Kirovgrad - Poltava
Minsk - Vilnius - Klaipeda
Minsk - Kaliningrad
Rostov - Novorossiysk - Sukhumi - Batumi
Rostov - Volgograd - Saratov - Kazan'
Tbilisi - Batumi
Tbilisi - Yerevan
Tbilisi - Baku
Yerevan - Batumi
Tashkent - Stalinabad
Tashkent - Chirchik - Frunze - Alma Ata
Tashkent - Osh - Frunze
Tashkent - Bishara - Khashka (Afghanistan Border)
Tashkent - Bishara - Ashkhabad
Chelyabinsk - Sverdlovsk - Perm'
Chelyabinsk - Magnitogorsk
Chelyabinsk - Kurgan - Omsk - Novosibirsk
Chelyabinsk - Kustanay - Khabarovsk - Khabarovsk
Grozny - Maykop
Grozny - Ufa
Grozny - Omsk - Turgay - Kyzyl Orda - Chirchik
Vladivostok - Khabarovsk - Khabarovsk

V. Inland Waterways

The USSR has an impressive navigable inland waterway system. There were about 140,000 kilometers of navigable waterways at the end of 1960. Almost the entire system freezes and becomes unnavigable for periods varying from 6 to 9 months each year. A map of the system is included as figure 17 of attachment A.

Over half of the navigable system is located east of the Volga River in sparsely populated areas. The number of rail served inland ports east of the Volga River and its tributaries in the area of the Urals is about 40. Access to these waterways other than through rail served ports is limited to a few non-rail served ports and landings.

The inland waterway system including the Volga-Kama basin and west is relatively much better developed. There are about 100 rail served inland ports on this portion of the inland waterway system, and a considerable number of non-rail served landings are also available along these waterways. Most of these landings are served by local unpaved roads.

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VI. Soviet Rail-Served Seaports

Listed below are 115 ports of the USSR graded in accordance with a system used by the Office of Naval Intelligence. There are three classes of port:

1) 22 principal (P), 2) 25 secondary (S), and 3) 68 minor (M). The ports are graded on the basis of their naval and commercial importance, their military traffic handling capacity, and their piers and cargo handling equipment. In the cases of most of the minor ports there is little or no dockage space and no cargo handling equipment which means that ocean going vessels have to load and offload in the roadstead.

A. Black Sea and Sea of Azov

1. Mariupol'	P
2. Nikolayev	P
3. Novorossiysk	P
4. Odessa	P
5. Poti	P
6. Sevastopol'/Balaklava	P
7. Tuapse	P
8. Batumi	S
9. Berdyansk	S
10. Feodosiya	S
11. Kherson	S
12. Kerch - Eysak - Durun	S
13. Taganrog	S
14. Yalta	S
15. Yevsk	S
16. Adler	M
17. Anapa	M
18. Azov	M
19. Gagra	M
20. Genichesk	M
21. Gdanty	M
22. Khotsa	M
23. Ochachire	M
24. Ovidiopol	M
25. Pitsunda	M
26. Primorsko Akhtarak	M
27. Pirtakha	M
28. Sachi	M
29. Sukhumi	M
30. Tsuman'	M
31. Valok	M
32. Yanikale	M
33. Yevpatoria	M

B. Baltic Sea

1. Baltiysk	P
2. Kaliningrad	P
3. Klaipeda	P
4. Leningrad	P

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11. Kola	M
12. Mokhnatkins Pakhta	N
13. Pon'gona	M
14. Raznevolok	M

D. Far Eastern Basin

1. Balchodka	P
2. Vladivostok	P
3. Sovetskaya Gavan'	S
4. Bukhta Andreyeva	M
5. Bukhta Bol'shogo Kamnya	M
6. Bukhta Kamyushkova	M
7. Bukhta Perevornaya	M
8. Bukhta Razboynik	M
9. Bukhta Sadini	M
10. Bukhta Sukhodol	M
11. Bukhta Troitsy	M
12. Bukhta Vampanu	M
13. Khagan	M
14. Pos'yot	M
15. Slavyanskiy Zaliv	M

E. Caspian

1. Astrakhan	P
2. Baku	P
3. Gur'yev	S
4. Krasnovodsk	S
5. Makhsachhala	S
6. Alyet	M
7. Astara	M
8. Lenkeran'	M
9. Neftchala	M
10. Port Il'icha	M
11. Sumgait	M

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